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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,281	04/12/2005	Donald Eagland	2953-224	3682

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EXAMINER	
FIGUEROA, JOHN J	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
04/10/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No.	Applicant(s)	
	10/509,281	EAGLAND ET AL.	
	Examiner	Art Unit	
	John J. Figueroa	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-23 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,660,802 to Eagland et al., hereinafter 'Eagland'.

Eagland discloses a method of preparing a polymeric material having a formula in accordance with that recited in instant claim 1, said method comprising providing a compound of the general formula A and contacting it with a second polymeric material B (such as polyvinylalcohol or collagen), wherein A and B can be the same or different, wherein the combination of A and B can produce a colloid or gel which may have applications in the recovery of oils, wherein the polymeric material can at least partially formed from a 1,2-substituted ethene compound, such a substituted styrylpyridinium compound; and wherein compound A in the reaction combining A and B is present in an amount of at least 0.5% and the solvent for the reaction can be water. (Abstract; col. 1, line 19 to col. 2, line 12)

Eagland discloses that A and B are independently selected from optionally-substituted alkyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aromatic and heteroaromatic groups, wherein group A or B preferably have a five- or six-membered ring structure; wherein the preferred heteroatoms of said heteroaromatic groups include nitrogen, oxygen and sulfur atoms. (Col. 2, line 6-26) The substituted groups in groups A and B, can be substituted halogen atoms, alkyl, acyl, acetal, hemiacetal, acetalalkyloxy, hemiacetalalkyloxy, nitro, cyano, alkoxy, hydroxy, amino, alkylamino, sulphinyl, alkylsulphinyl, sulphonyl, alkylsulphonyl, sulfonate, amido, alkylamido, alkylcarbonyl, alkoxycarbonyl, halocarbonyl and haloalkyl groups. (Col. 2, line 27-40)

Eagland further discloses that the second polymeric compound includes functional groups that react with the first polymeric compound in an acid catalyzed reaction, condensation reaction. (Col. 3, line 36-46) This second polymeric compound is preferably an unsubstituted; polyvinylalcohol; polyvinylacetate; polyalkylene glycols, for example polypropylene glycol; and collagen. (Col. 3, lines 46-58) The ratio of the wt % of said first polymeric compound to the second polymeric compound can be in the range 0.01 to 100, is preferably in the range 0.05 to 50. (Col. 3, lines 58-67)

Moreover, Eagland discloses that a third polymeric material can be added to the composition or gel formed from thereof. (Col. 4, lines 40-58) Samples of methylpyridinium derivatives compounds are disclosed in Eagland. (Col. 5, line 10 to col. 6, line 26; Example 1) In Example 3, Eagland discloses using the disclosed compounds in gelled forms in an oil recovery process.

Thus, the claims are anticipated by Eagland.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 24-27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eagland in view of USPN 6,605,570 B2 to Miller et al. (hereinafter 'Miller').

Eagland was discussed above. Although Eagland discloses using the disclosed compound/composition in oil recovery applications, Eagland does not expressly disclose injecting the compound/composition into a well.

However, Miller teaches common oil recovery techniques, such as stimulation, are performed by: (1) injecting chemicals into the well bore and/or into the formation to react with and dissolve the damage; (2) injecting chemicals through the well bore and into the formation to react with and dissolve small portions of the formation to create

alternative flow paths for the hydrocarbon (3) injecting chemicals into the well bore that will contact drilling or drill-in fluid filter cake that resides along the face of the well bore thus removing filter cake from the well bore face; or (4) injecting chemicals through the well bore and into the formation at pressures sufficient to fracture the formation ("hydraulic fracturing"), thereby creating a large flow channel though which hydrocarbon can more readily move from the formation and into the well bore. (Col. 1, lines 20-63)

Miller also teaches similar oil recovery formation solutions conventionally comprising brine (salt and water) and a fluid-loss control crosslinking agent (gelling/viscosifying agent). (Col. 5, lines 35-59; col. 8, line 61 to col. 9, line 22)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time that the claimed invention was made to inject a brine solution composition of the compound used in the oil recovery process disclosed in Eagland. It would have been obvious to one skilled in the art to do so to do so because it is the efficient, conventional form of delivering treatment fluid compositions into a well bore as taught by Miller.

Therefore, the claims are unpatentable over Eagland and Miller.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Figueroa whose telephone number is (571) 272-8916. The examiner can normally be reached on Monday-Thursday 8:00-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJF/RAG

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796